

# Internet-Based, GIS Catalog of Non-Traditional Sources of Cooling Water for Use at America's Coal-Fired Power Plants

**Project Number: DE-NT0005957**

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*David Alleman*  
*ALL Consulting*

*NETL Project Kick-off Meeting*  
*October 28, 2008*

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# Project Facts

**Project Number:** DE-NT0005957

**Funding:**

**DOE:** \$ 451,385

**Cost Share:** \$ 177,250

**Total Cost:** \$ 628,635

**Period of Performance:** 36 Months

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# Project Performers

## Recipient :

ALL Consulting

**Principal Investigator:** Dan Arthur, President

## Primary Partner:

Ground Water Protection Council (GWPC)



# Arthur Langhus Layne, LLC.

dba ALL Consulting

Energy, Engineering and Environmental Consultants

HubZone Certified Small Business

Headquartered in Tulsa, OK

Offices in MT, NM, TX, MO, and LA



# ALL Consulting

## Extensive Experience in :

- **Oil and Gas Private Industry Work and Research with NETL**
  - Beneficial Use of Produced Water
  - Water Management
  - Underground Injection Control
  - Coal Bed Methane
  - Shale Gas
  - Environmental
  - CO<sub>2</sub> EOR
  - Environmental Planning/Permitting
- **NEPA/Environmental Reviews**
  - Bureau of Land Management
  - Forest Service
  - Corps of Engineers

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# Ground Water Protection Council (GWPC)

- National association of state ground water and underground injection control agencies whose mission is to promote the protection and conservation of ground water resources for all beneficial uses
- Provides a forum for stakeholder communication and research in order to improve governments' role in the protection and conservation of ground water
- Membership includes more than 35 state water agencies, oil and gas associations, coal associations, public utility associations, etc.
- Working closely with NETL and EPA on CO<sub>2</sub> injection issues

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# Need for the NETL Program

- Water is a Looming National Crisis
  - “Water is the oil of the 21<sup>st</sup> Century”
  - “Water, unlike oil, has no substitute”
  - “Water consumption is doubling every 20 years”
  - “Water is not discretionary”
- New research can resolve environmental concerns, create new water resources, and promote energy development

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# Project Goals

- Allow reduced/minimized high quality freshwater withdrawals by identifying non-traditional sources of water.
- Ensure that operators are aware of their options and allow them to assess the availability of these waters to supplement or replace their water supply on a short-term or long-term basis.

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# Project Summary

- Identify Location and Water Needs of CFPP in the Lower 48 – Both Current and Planned
- Identify Location, Quality and Volume of Non-Traditional Sources of Water
  - Oil and Gas Produced Water
  - Mine Pool Water
  - Lower Quality Ground Water
  - Other Industrial Sources
  - Other?
- Create an Inter-net Based GIS Catalog of Non-Traditional Sources of Cooling Water

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# Project Overview

- **Budget Period I – Data Collection**
- **Budget Period II – System Development**
- **Budget Period III – Beta Test, Launch, Operate**
- Technology Transfer Will Occur Throughout the Life of the Project
- ALL and GWPC Plan to Continue Hosting the Site After Project Completion
- Guided by a Project Advisory Council

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# Project Advisory Council (PAC)

- GWPC Members
  - State Water Agency Representatives
  - Industry Association Representatives
- USGS Representatives
- Others as Identified

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# Synergies

- Energy Water Nexus
- NETL's Oil and Gas Program
- Conventional Oil and Gas
- Unconventional Oil and Gas
  - CBNG
  - CO<sub>2</sub> EOR
  - Gas Shale
- Other National Lab Water Efforts, e.g., SNL, LANL
- CO<sub>2</sub> Sequestration Program

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# Contact Information

## ALL Consulting

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